### **Activity 1: Perfect and Imperfect Competition**

A perfectly competitive market is one in which many sellers produce identical products in a market that is relatively easy to enter and leave. In these markets, sellers have no control over the price of their products. They have to accept the market price and they can sell as much or as little as they want at that price.



If these conditions do not exist, the market is said to be imperfectly competitive. There are several possible kinds of imperfectly competitive markets depending upon: 1) the number of sellers, 2) the types of products produced (especially the availability of close substitutes), and 3) whether the market is easy to enter.

Considering these characteristics of perfectly and imperfectly competitive markets, imagine that you are a seller in each of the following markets. Explain what you think would happen to your sales levels if you raised or lowered the price of your product. Specifically, how much do you think sales would change, and why?

| Wheat Farmer    | If you <u>increase</u> your price, what happens? Why? |
|-----------------|---|
|                 | If you <u>decrease</u> your price, what happens? Why? |
| Local Electric  | If you <u>increase</u> your price, what happens? Why? |
| Company         | If you <u>decrease</u> your price, what happens? Why? |
| U.S. Automobile | If you increase your price, what happens? Why?        |
| Manufacturer    | If you <u>decrease</u> your price, what happens? Why? |
| Flower Shop     | If you <u>increase</u> your price, what happens? Why? |
|                 | If you <u>decrease</u> your price, what happens? Why? |

### **Activity 2: The Prisoners' Dilemma**

Curly and Moe are crooks. They have been caught stealing auto parts and are now sitting in separate rooms in the city jail. The District Attorney is delighted to have finally caught Curly and Moe in the act of committing a crime. The DA knows that Curly and Moe are guilty not only of this crime, but also of several other burglaries that have occurred during the past year. She knows they are guilty of these crimes, but she can't prove that in court.



The DA decides to try to persuade Curly and/or Moe to confess by offering them a deal. She talks to each one separately and says: "I have enough on both of you to send you to jail for a year. But if you alone confess to the other robberies, which carry a 10-year sentence, you will get off with three months and only your partner will serve 10 years. If you both confess to the other robberies, you will both get five years."

Don't worry here about whether the constitutional rights of Curly and Moe are being violated, or whether they would actually serve these exact sentences if convicted. Those are interesting and important issues, but they can be dealt with in another activity or course. For now, accept the four following propositions:

- 1. If Curly confesses and Moe doesn't, Curly goes to jail for three months and Moe for ten years.
- 2. If Moe confesses and Curly doesn't, Moe goes to jail for three months and Curly for ten years.
- 3. If both Curly and Moe confess, they both go to jail for five years.
- 4. If neither Curly nor Moe confess, they both go to jail for one year.

Given those results, answer the following questions:

- A. 1. What would you do if you were Curly and you expected Moe to confess? Why?
  - 2. What would you do if you were Curly and you expected Moe not to confess? Why?
- B. 1. What would you do if you were Moe and you expected Curly to confess? Why?
  - 2. What would you do if you were Moe and you expected Curly not to confess? Why?
- C. What would you do if you were Curly or Moe? Are there things other than jail terms you should consider?
- D. Under what circumstances would Curly and Moe not confess?

### **Activity 3: Dueling Gas Stations**

Mac and Charlie each own and operate gasoline stations across the street from each other on the edge of town, near an interstate highway. There are no other service stations in this town. They are now selling their gasoline for exactly the same price and they both have large signs listing their price.



A. Mac is considering raising his price because he thinks that people will buy about the same amount of gasoline even if the price is raised a little. He figures that he can more than make up for the few sales he will lose with the higher price for the sales he makes. Would you advise Mac to do this? Explain your answer.

B. Charlie is considering lowering his price because he thinks that he can take business away from Mac if his price is a little lower. He believes he can more than make up for the small decrease in revenue from each gallon sold by selling a lot more gallons. Would you advise Charlie to do this? Explain your answer. .

C. Can you think of any other actions that Mac or Charlie might take to increase the profitability of their businesses?

### Activity 4: We're All in This Together. . . Aren't We?

Imagine that you represent one of the 10 largest soft-drink companies in the nation, and that you are attending a meeting of the American Soft Drink Producers Association. During an afternoon session the association economist presents evidence showing that, at current prices, the demand for all soft drinks (not one particular brand) is inelastic. This means that if prices are lowered, consumers will buy more soft drinks, but the increase in sales will be relatively small. If prices are raised, consumers will buy fewer soft drinks, but the decrease in units sold will be relatively small. The economist presents evidence showing that if all of the 10 largest companies increase their prices 15 percent, each company's profits would increase 12 percent. Each company would sell a little less than now, but at higher prices. An off-the-record motion is made (after all, you wouldn't want the Justice Department to bring charges of illegal price fixing) that each firm raise its prices by 15 percent. The unofficial motion passes unanimously.

Returning to your office, you must decide whether to send out a memo announcing a price increase. Having had some training in economics, you realize that the effect of a price increase on your profits depends on how many other firms really go along with the price increase.

The following table shows the change in your profits under the different possible outcomes. Under these circumstances, would you raise your price?

| Number of firms raising price | Number of firms <u>not</u><br>raising price | Percent change in<br>profits for firms raising<br>price | Percent change in profits for firms <u>not</u> raising price |
|-------------------------------|---|---|--|
|                               | _   |   |  |
| 10                            | 0   | +15   |  |
| 9                             | 1   | +12   | +100   |
| 8                             | 2   | +9  | +75  |
| 7                             | 3   | +6  | +50  |
| 6                             | 4   | +2  | +30  |
| 5                             | 5   | 0   | +18  |
| 4                             | 6   | -5  | +10  |
| 3                             | 7   | -15   | +6   |
| 2                             | 8   | -30   | +4   |
| 1                             | 9   | -50   | +2   |
| 0                             | 10  |   | 0  |

|                  | Yes, I would raise the price of my product.    |  |
|------------------|--|--|
|                  | No, I would not raise the price of my product. |  |
| <u>Explain</u> y | your decision:                                 |  |
|                  |  |  |
|                  |  |  |
|                  |  |  |